

Appl. No. : 10/584,968
NP Filed : June 30, 2006

REMARKS

In the Office Action, Claims 14-24, 36-44, 47, and 49-51 were rejected over the prior art as discussed below. In this Amendment, Claim 14 has been amended. Claims 14-24, 36-44, 47, and 49-51 remain pending for further consideration.

Double Patenting Rejection

The Examiner provisionally rejected Claims 14, 15, 20-22 and 36-46 under the judicially created doctrine of obviousness-type double patenting as being obvious over Claims 8-18 of copending U.S. Application No. 11/744,812. The Examiner further provisionally rejected Claims 14, 15, 20-22, 45, and 46 under this doctrine as being obvious over Claims 1 and 8-18 of copending Application No. 11/744,802. In view of the amendments made herein, Applicant believes that these double patenting rejections may be moot. However, Applicant may be willing to file a terminal disclaimer(s) if any of the claims now pending are rejected by the Examiner as constituting double patenting after consideration of this response and associated papers, and if the present application is not the first to issue. Applicant respectfully requests that these rejections be withdrawn.

Rejections Based on Jayaraman

In the Office Action, Claims 14-18, 23, 24, 36, 43, 44, and 47 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,755,781 to Jayaraman (Jayaraman) and Claim 20 was rejected under 35 U.S.C. § 102(b) as being obvious in view of Jayaraman alone. Applicant does not agree with these rejections, but has made certain amendments solely to expedite allowance.

Jayaraman

Jayaraman is directed to a device that includes multiple interconnected stents. The Examiner refers to the embodiments of Figures 4 and 9. Figure 4 is reproduced below:

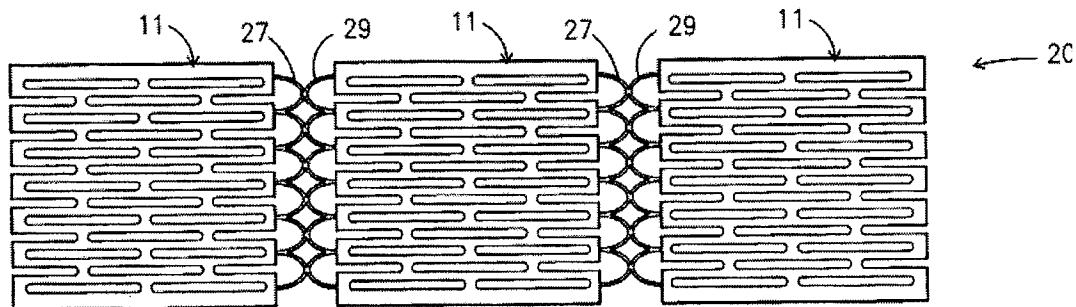


Fig. 4

Jayaraman states in connection with this embodiment:

With reference to FIG. 4, a second embodiment of multiple interconnected stents is designated by the reference numeral 20 and includes a plurality of pieces 11 forming stents as explained above. Adjacent stents are interconnected by virtue of U-shaped members 27, 29 that are fused together at various points and interconnected to each stent as shown in FIG. 4. These interconnectors 27, 29 are flexible and resilient.

Jayaraman at 4:46-53.

The embodiment of Figure 9 is shown below:

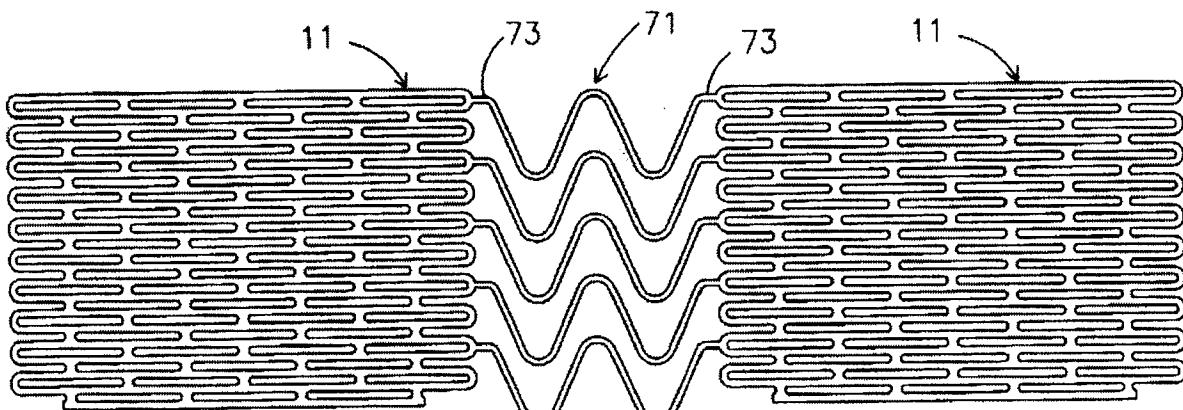


Fig. 9

In discussing this embodiment, Jayaraman states:

FIG. 9 shows a seventh embodiment of the present invention generally designated by the reference numeral **70** and including a plurality of pieces **11** interconnected together by a plurality of vertically spaced interconnectors **71**, each one of which is flexible and resilient and resembles the letter "W". At the lateral sides of each connector **71**, a short lateral section **73** is provided to connect the connector **71** to each adjacent piece **11**.

Jayaraman at 5:17-24.

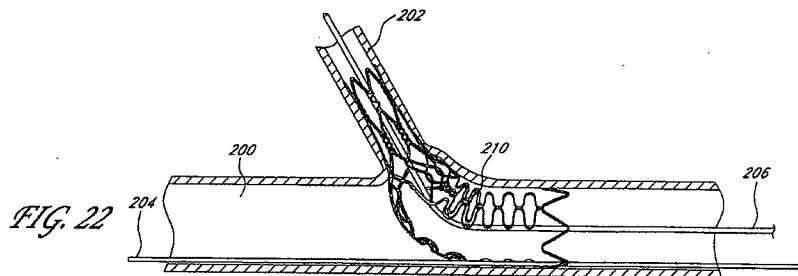
Applicant disagrees that either the U-shaped interconnectors 27, 29 or the W-shaped interconnectors 71 correspond to the recited flexible fronds. However, to expedite allowance, amended Claim 14 now recites, *inter alia*, a prosthesis for placement at an opening from a main body lumen to a branch body lumen, the prosthesis comprising:

a radially expandable support, the support configured to be deployed in at least a portion of the branch body lumen, *the support adapted to provide a first radial force to support a body lumen*;

at least two elongate, flexible fronds each having a first end, a second end and a length in between, the fronds extending from an end of the support and configured to be positioned across the Os and into the main body lumen; and

at least one circumferential link connected to the second ends of each of the fronds, *the circumferential link spaced axially apart from the support by the fronds and adapted to provide a second radial force that is less than the first radial force . . .*

Applicant's claimed structure may be understood by reference, for example, to Fig. 22 of the present application:



As illustrated, Applicant's support is deployed in a branch vessel with fronds extending from the support and across the ostium into the main vessel. The circumferential link is shown within the main vessel, spaced apart from the support by the fronds. As illustrated, the

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circumferential link is neither capable nor intended to exhibit equivalent radial force to the support. This is because of the completely different function of the circumferential link, which is to control and position the fronds during the deployment process, not to provide the luminal support and/or anchoring desired of the branch vessel support.

Applicant's claimed construction is thus contrary to the teachings of Jayaraman at least in that Jayaraman is directed to providing several linked stents to cover a target area that is very long. Jayaraman at 1:12-17. Jayaraman teaches away from lessening the rigidity of any of the stent segments. Jayaraman states:

Since the individual stent must be made of a rigid construction to perform its reinforcing task, where a tortuous path of a blood vessel must be opened and/or reinforced, a plurality of stents must be interconnected together to cover the entire length of the area where reinforcement is necessary.

Jayaraman at 1:22-27 (emphasis added).

Thus, Claim 14 as amended is not anticipated by Jayaraman. Also, Jayaraman teaches away from the recitation of amended Claim 14 by requiring that the rigidity of the multiple stent structure be maintained along the length thereof. For at least these reasons, Applicant requests allowance of Claim 14 and Claims 15-18, 23, 24, 36, 43, 44, and 47 which depend therefrom.

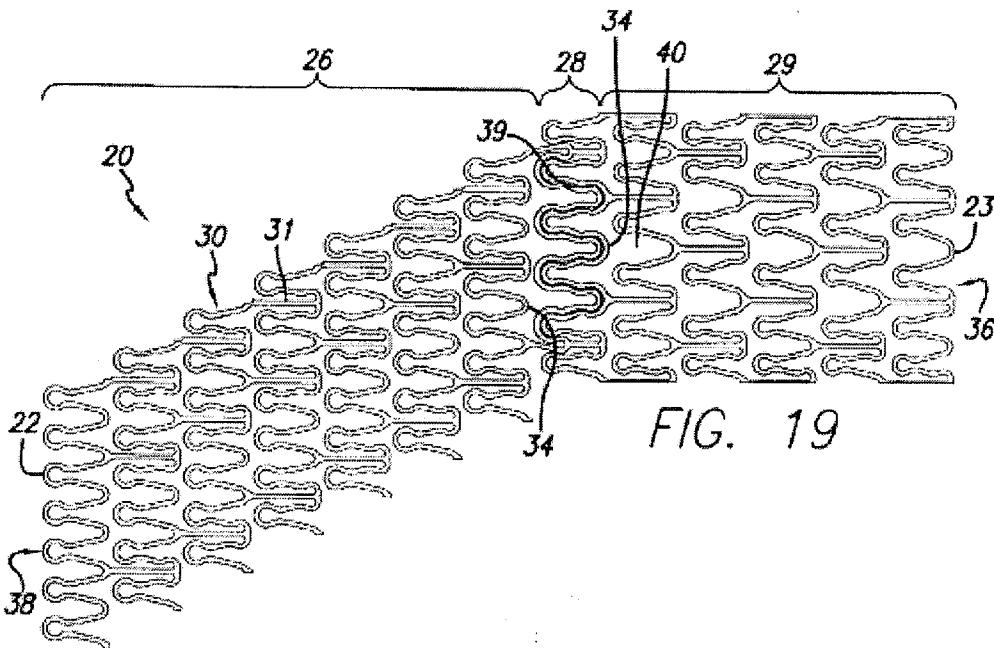
Applicant also requests allowance of dependent Claim 19, which was rejected as obvious in view of Jayaraman and U.S. Patent No. 5,342,387 to Summers et al. (Summers). Summers does not make up for the shortcomings of Jayaraman, discussed above in connection with Claim 14. Thus, a *prima facie* case of obviousness is not made against Claim 19.

Applicant also requests allowance of dependent Claim 20, which was rejected as obvious in view of Jayaraman alone. As discussed above, Jayaraman does not disclose or suggest all limitations of Claim 14. Thus, a *prima facie* case of obviousness is not made against Claim 20.

Rejections Based on Callol

In the Office Action, Claims 14-16, 21, 22, 36-41, 43, and 44 were rejected under 35 U.S.C. § 102(e) as being anticipated by US. Publication No. 2002/0183763 to Callol et al. (Callol). Applicant does not agree with this rejection, but has made certain amendments solely to expedite prosecution.

Callol is directed to a stent 20 for treating bifurcations, where the stent has a "trap door" section 28, as shown in Figure 19 (reproduced below) as cited by the Examiner.



Regarding the recited fronds, the Examiner refers to the structure 39, stating "see the figure below, where each frond is each portion that extends from the support 26 to the peak." Office Action at 8. Although the Examiner does not state which "peak" is the farthest extent of the "frond" of Callol, presumably it is the peak that is labeled in the figure, i.e., peak 34. Additionally, the Examiner refers to the "circumferential link" as being "the proximal portion of 29" the recited openings as "the gaps between each frond" seen in Figure 19. Id. Though it is not clear which gaps the Examiner is referring to, amended Claim 14 is not anticipated by the structure relied upon by the Examiner. In particular, amended Claim 14 recites a prosthesis for placement at an opening from a main body lumen to a branch body lumen, the prosthesis comprising:

a radially expandable support, the support configured to be deployed in at least a portion of the branch body lumen, the support adapted to provide a first radial force to support a body lumen;

at least two elongate, flexible fronds each having a first end, a second end and an axially extending undulating elongate portion having a plurality of crests and troughs between the first and second ends length in between, at least a portion of the elongate portion comprising a plurality of spaced apart filaments having crests and troughs extending in-phase, the fronds extending from an end of the support and configured to be positioned across the Os and into the main body lumen; and

at least one circumferential link comprising an undulating pattern including a plurality of crests and troughs, the circumferential link being connected at crests thereof to the

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second ends of the fronds, the circumferential link spaced axially apart from the support by the fronds and adapted to provide a second radial force that is less than the first radial force;

a plurality of elongate side wall openings in between adjacent fronds sized and configured to receive a stent deployment device therethrough;

the elongate, flexible fronds, the support and the circumferential link defining a unitary body as deployed, the elongate side wall openings in between adjacent fronds for facilitating crossing of a main vessel stent therethrough when the support is positioned in the branch body lumen and the circumferential link is positioned in the main body lumen.

Callol does not describe the limitations of amended Claim 14. Therefore, Applicant requests that the rejection of Claim 14 based on Callol be withdrawn. Also, the rejection of Claims 15, 16, 21, 22, 36-41, 43, and 44 should also be withdrawn in view of the allowability of Claim 14 from which each of these claims depend.

Claims 42, 50, and 51 have been rejected as being obvious over Callol in view of U.S. Publication No. 2004/0106985 to Jang (Jang); and Claims 47 and 49 were rejected as being obvious over Callol in view of U.S. Patent No. 6,451,050 to Rudakov et al. (Rudakov). However, neither Jang nor Rudakov make up for all of the shortcomings of Callol discussed above in connection with Claim 14. Therefore, Applicant requests that the rejection of Claims 42, 47, and 49-51 based on the combinations of Callol and these secondary references be withdrawn.

Co-Pending Applications of Assignee

Applicant wishes to draw to the Examiner's attention to the following co-pending applications of the present application's assignee.

Serial Number	Docket No.	Title	Filed
10/807,643	ANVIL.001A	STENT FOR PLACEMENT AT LUMINAL OS	23-Mar-2004
11/076,448	ANVIL.001CP1	VASCULAR BIFURCATION PROSTHESIS WITH MULTIPLE THIN FRONDS	09-Mar-2005
11/190,514	ANVIL.001CP2	VASCULAR BIFURCATION PROSTHESIS WITH MULTIPLE LINKED THIN FRONDS	27-Jul-2005
11/249,138	ANVIL.001CP3	STEPPED BALLOON CATHETER FOR TREATING VASCULAR BIFURCATIONS	12-Oct-2005

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Serial Number	Docket No.	Title	Filed
11/603,338	ANVIL.001CP4	HELICAL OSTIUM SUPPORT FOR TREATING VASCULAR BIFURCATIONS	21-Nov-2006
11/744,796	ANVIL.1BNPC1	PROSTHESIS AND DEPLOYMENT CATHETER FOR TREATING VASCULAR BIFURCATIONS	04-May-2007
11/744,812	ANVIL.1BNPC2	PROSTHESIS FOR TREATING VASCULAR BIFURCATIONS	04-May-2007
11/744,802	ANVIL.1BNPC3	KIT FOR TREATING VASCULAR BIFURCATIONS	04-May-2007
10/965,230	ANVIL.003A	DELIVERY SYSTEM FOR PLACEMENT OF PROSTHESIS AT LUMINAL OS	13-Oct-2004
11/781,201	ANVIL.003DV1	PROSTHESIS FOR PLACEMENT AT A LUMINAL OS	20-Jul-2007
11/781,164	ANVIL.003DV2	SYSTEM FOR DELIVERING A PROSTHESIS TO A LUMINAL OS	20-Jul-2007

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that the Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

CONCLUSION

For the foregoing reasons, it is respectfully submitted that the rejections set forth in the outstanding Office Action are inapplicable to the present claims. Accordingly, issuance of a Notice of Allowance is most earnestly solicited.

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Applicant respectfully traverses each of the Examiner's rejections and each of the Examiner's assertions regarding what the prior art shows or teaches. Although amendments have been made, no acquiescence or estoppel is or should be implied thereby. Any arguments in support of patentability and based on a portion of a claim should not be taken as founding patentability solely on the portion in question; rather, it is the combination of features or acts recited in a claim which distinguishes it over the prior art.

The undersigned has made a good faith effort to respond to all of the rejections in the case and to place the claims in condition for immediate allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is respectfully requested to call Applicant's attorney, Andrew M. Douglas at (949) 721-7623 to resolve such issue(s) promptly.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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